Outside Plant for
Business-Critical Continuity™

NetXtend™ PDC Series with NTI Technology

Integrated Enclosure Solution

EMERSON™
Network Power

Key Features

- **V3 SHIELD™ NTI Technology** — adds thermal protection at the "board level" eliminating thermal runaway and allows actual peak pulse current to be handled by the suppression module
- Integrated design minimizes "footprint," maximizes system performance and reduces installation time
- 30 or 42-position load center options provide wiring configuration flexibility
- Fully redundant, two-stage surge suppression provides unmatched power protection
- Easy access design simplifies module upgrades or replacement
- Main disconnect switch for utility and optional generator sources allows easy serviceability
- Optional Automatic Transfer Switch or Slide Bar Transfer Switch provides generator source capabilities
- SAD technology provides fast clamping and high energy handling
- Remote status indication allows long-distance monitoring
- Field replaceable modules are stacked side-by-side for easier installation and indication
- Independent visual LED status indication on each module for convenient protection status

As a stand-alone solution, or as part of a comprehensive power protection plan, the PDC series provides the ultimate in power delivery and power protection.

The NetXtend™ PDC Series of integrated enclosures offers both power distribution and TVSS in one seamless unit. An Automatic Transfer Switch (ATS) for generator applications is also available.

The PDC Series provides the lowest possible clamp voltage to peak current performance characteristics available in the market today. Integrated V3 SHIELD™ NTI technology provides peak pulse current handling that surpasses traditional "fused TVSS" devices.

This series also utlizizes Silicon Avalanche Diode (SAD) technology, providing state-of-the-art protection at the branch service entrance. The 30 or 42-position load center enables the PDC series to accommodate a broad range of wiring options. The main disconnect allows convenient serviceability and maintenance. Generator switching is accommodated with either an Automatic Transfer Switch or Walking Beam Transfer Switch.

Protection against destructive weather, thermal, electrical, environmental and mechanical forces is vital to assuring the reliability and revenue-producing capability of your wireless and wireline networks

Ordering Matrix – NetXtend™ PDC Series

Service Voltage	B = 120/240V, single phase	
Primary Suppression	2 = SAD 20 kA	B = MOV 200 kA
TVSS Configuration	K = Kelvin (in-line)	
Supplemental Suppression	B = MOV 200 kA	0 = None
Amperage	2 = 200 Amp	
Load Center	3 = 30 overcurrent devices	4 = 42 overcurrent devices
Disconnect	B = Single disconnect, 65 kAIC W = Walking beam (discontinued)	U = 300 ATS Series (Automatic Transfer Switch) S = Slide bar interlock (standard)
Grounding Options	G = Isolated ground	S = Standard ground
Voltage Monitoring	Q = Normal/Generator	

Specifications – PDC Model

AC Cabinet Dimensions	20.00" wide x 65.00" high x 5.75" deep
Weight	Approx. 75 lbs. (50 kg)
Cabinet Enclosure Type	NEMA 1 rated
Amperage	200 Amp utility/standby
Safety Compliance	UL 67 Panelboards UL 65k AIC standard, slide bar PDC

NOTE: All PDC cabinets are available with up to 65k AIC ratings.

Suppression Module Specifications – PDC Model

	Primary	**Secondary**
Nominal Clamp Voltage	232 Vpk	272 Vpk
Response Time	< 5 ns	< 20 ns
Peak Pulse Energy	up to 800 Joules	> 1920 Joules
Peak Pulse Current (8x20µs)	up to 20 kA	200 kA
	Primary and Secondary	
Visual Indication	LEDs	
Remote Indication	Hardwired (form C dry contacts)	
Safety Compliance	UL 1449 recognized	
Protection	Overcurrent & overvoltage (thermal)	

300 ATS Model Standard Features

- Automatic Transfer Switch (ATS)
- Double-throw electromechanical switching device for inherent isolation of the utility and generator sources.
- ATS digital controller provides continuous monitoring of both power sources and a start/stop signal to the generator
- ATS control with indication lights
- Key-lockable load center door for “lock-out / tag-out” compliance
- Main utility breaker rated up to 65kAIC
- TVSS modules
- Load center
- Programmable engine exerciser
- ATS position contacts
- Voltage monitoring relays (240VAC)
- Isolated ground bar and common ground bus bar

Specifications – 300 ATS Model

AC Cabinet Dimensions (H x W x D)	68.00" x 25.50" x 6.00"
Weight (approx.)	110 lbs. (50 kg)
Cabinet Enclosure Type	NEMA 1 rated
Amperage	200 Amp utility/standby
Voltage	120/240 VAC single phase
Safety Compliance	UL 67 panel boards

300 ATS Model Elements

1 Utility Main Breaker (rated up to 65kAIC)

2 Automatic Transfer Switch (ATS)

3 TVSS Modules

4 Load Center

5 ATS Control (with indication lights)

6 ATS Digital Controller

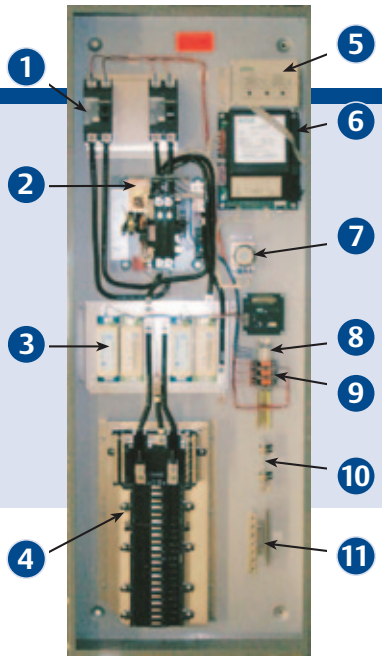
7 Programmable Engine Exerciser

8 ATS Position Contacts

9 240VAC Voltage Monitoring Relays

10 Isolated Ground Bar

11 Ground Bar



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Remote Indication	Hardwired (form C dry contacts)	Hardwired (form C dry contacts)
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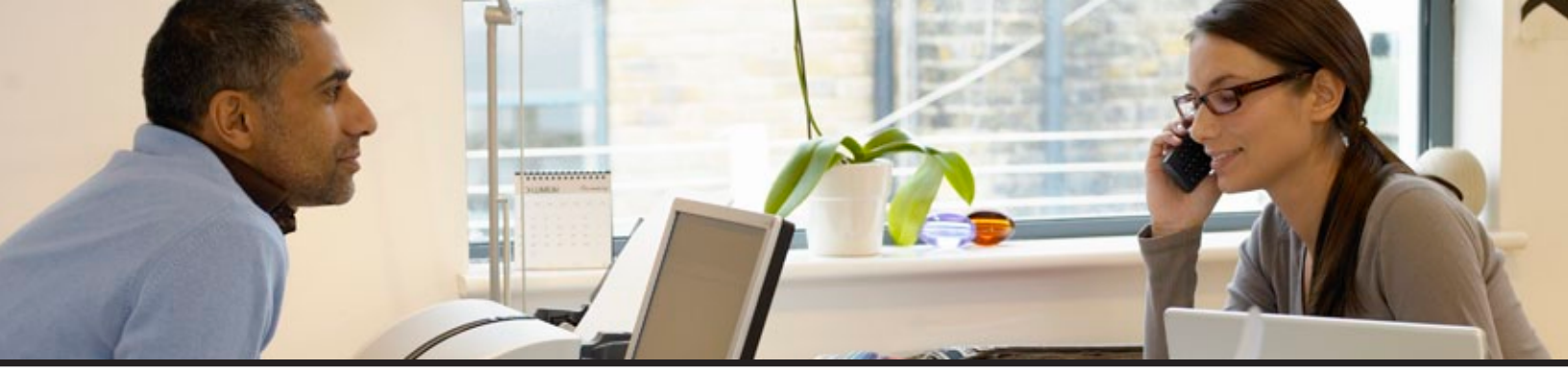
Protection	Overcurrent & overvoltage (thermal)	Overcurrent & overvoltage (thermal)



Transfer Switch Specifications

Poles	2
Voltage (nominal)	220-240 VAC, single phase, 3 wire
Frequency (nominal)	60 Hz
Current	200 Amps
Generator Rating (maximum)	48KW
Withstand / Close-On Current	10,000 Amps RMS Symmetrical amps 240 VAC max. for any circuit breaker, manufacturer, or type per National Electrical Code, NEC/NFPA 70
Power Terminal Wire Sizes	200 Amp unit One #8 to 3/0 AWG Cu (copper wire must be used for full 200 Amp rating)
Safety Compliance	UL 1008 transfer switch equipment

Controller

The NetXtend™ PDC Series incorporates several parameters that can be set according to system design preferences. This allows for a wide range of flexibility in setting thresholds and timing options with the standard base product. The standard controller utilizes simple push button operation for testing and exerciser time set.

Voltage and Frequency Sensing

Differential Voltage Sensing	All phases of utility source
Voltage (Nominal)	220-240 VAC
Normal Source Voltage Drop Out	204 VAC
Normal Source Pick Up	216 VAC
Emergency Source Voltage Drop Out	180 VAC
Emergency Source Voltage Pick Up	216 VAC
Emergency Source Frequency Drop Out	51 VAC
Emergency Source Frequency Pick Up	57 VAC

Generator Exercise Control

Standard Automatic Generator Exerciser	
Repeat Time	Every 7 days
Duration	20 minutes – with or without load transfer
Generator Control Contacts	
Gold plated engine start/stop contacts	Rated 5 Amps 28 VDC / 120 VAC

Transformer Voltage Adjust

HI	Nominal phase-to-phase voltage
LOW	Shifts all voltage settings down 4.2% from nominal

Time Delay Parameters and Control

Override Momentary Normal Source Outage	3 seconds
Transfer to Generator Time Delay	0-5 minutes adjustable
Override Momentary Generator Initial Loading Events	4 seconds
Re-transfer to Normal Source Time Delay	1 second to 30 minutes adjustable
Unloaded Generator Cool Down Run Time Delay	5 minutes

Optional Programmable Engine Exerciser

In addition to the standard programmable weekly exercise function, an optional programmable controller provides the ability to individually control the start time and duration of test for each day of the week. An internal NiCad battery retains program memory for up to 150 hours if failure of both utility and generator power occurs.

Remote Control Features

- **Remote test switch**
  Simulates normal source failure similar to a transfer switch test push button
- **Remote transfer to generator**
  Opening the contact causes the generator to start and transfer to the generator
- **Inhibit transfer to generator**
  Opening the contact prevents the transfer switch from transferring to the generator source while connected to the normal source
- **Remote time delay bypass switch**

NOTE: Requires customer supplied, remote normally closed contact and control signaling for each remote feature desired. See manufacturer reference drawings and manual for additional details.

Communications Option

Remote monitoring and control can also be provided through additional networking software and interface hardware options, including web access capability.

NOTE: These enhancements are not included with the standard product.

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